

What is claimed is:

1. A product identifier adapted for dynamic illumination, comprising:
a package 101 that covers at least a portion of a product, said package having an electroluminescent material 105 arranged on at least a portion of an exterior surface and electrical contacts 115 electrically connected to said electroluminescent material 105, said contacts being arranged on a portion of a surface adapted for contact with one of a plurality of shelf contacts and a power source.
2. The product identifier according to claim 1, wherein the electroluminescent material is arranged to display a product logo on the package 101.
3. The product according to claim 1, wherein the electroluminescent material is arranged to provide a background illumination of the package 101.
4. The product according to claim 1, wherein the electroluminescent material 105 is arranged as a matrix of pixels to display one of static and dynamic predetermined messages.
5. A dynamically illuminated product display system, comprising:
a shelf 110 having a series of electrical contacts 120 arranged on an upper surface thereon, said shelf being adapted for connection with a power source;
a package 101 that covers at least a portion of a product, said package having an electroluminescent material 105 arranged on at least a portion of an exterior surface and electrical contacts 115 arranged on a portion of a bottom surface so that when said package is arranged on said shelf, the electrical contacts 115 on the bottom surface of the package 101 are facing the electrical contacts 120 arranged on the shelf 110, said package also having the electrical contacts 115 and said electroluminescent material 105 electrically connected.
6. The system according to claim 5 wherein said electroluminescent material 105 on said package 101 illuminates when said package 101 is electrically connected to said shelf 110, and the power source is connected to said shelf.

7. The system according to claim 5, wherein the electrical contacts 120 of said shelf 110 are arranged only on a front portion of the shelf, so that only when the package 101 is arranged on the front portion of the shelf 120 facing a consumer will the package be illuminated by the system.

8. The system according to claim 5, wherein the shelf is formed on an incline so that when the first package facing the consumer is removed, additionally stocked packages will slide forward toward the front portion of the shelf so that a second package becomes illuminated.

9. The system according to claim 5, wherein a portion of the electroluminescent material comprises conductive ink.

10. The system according to claim 5, wherein a portion of the electroluminescent material comprises a plurality of nano-leds.

11. The system according to claim 5, wherein at least a portion of the electroluminescent material 105 is arranged as a background illumination sub-system for the product package 101.

12. The system according to claim 5, wherein at least a portion of the electroluminescent material is arranged on the package to display an illuminated logo of the product.

13. The system according to claim 5, wherein at least a portion of the electroluminescent material is arranged on the package to display a stationary lighted message.

14. The system according to claim 5, wherein at least a portion of the electroluminescent material is arranged on the package to display two or more stationary lighted messages.

15. The system according to claim 5, wherein the stationary lighted message comprised of at least a portion of the electroluminescent material blinks on and off.

16. The system according to claim 5, wherein at least a portion of the electroluminescent material is arranged on the package to provide a dynamic lighted message.

17. The system according to claim 5, further comprising a controller 126 that controls a brightness of a display of the electroluminescent material 105 on the package 101.

18. The system according to claim 10, where the nano-leds are arranged as a matrix of pixels on the package 101.

19. A dynamically illuminated product display system, comprising:
a plurality of shelves 310 having a series of electrical contacts 320 arranged on a respective upper surface of each shelf,
a matrix of product packages 301 that covers at least a portion of a product, each of said packages having an electroluminescent material 305 arranged on at least a portion of an exterior surface and having electrical contacts 115 electrically connected to the electroluminescent material 305 and arranged on a portion of a lower surface of the packages so that when said packages are arranged on said shelf, the electrical contacts 115 on the lower surface of each respective package 301 face the electrical contacts 320 arranged on the shelves 310,
a controller 325 in electrical connection with the shelves, said controller determining which of the product packages of the matrix are to be illuminated and an amount of illumination displayed;
wherein said matrix being displayed as an arrangement of pixels so that illuminated messages can be displayed across a plurality of product packages 301.

20. The system according to claim 19, further comprising:
 - a sensor 307 that senses when a consumer is within a predetermined distance of the matrix and signals the controller 325 so that said controller: 1) turns on the illumination; and 2) blinks a message to entice the consumer to read the message.
21. A method for providing product illumination, comprising the steps of
 - (a) arranging a plurality of shelves 310 having a series of electrical contacts 320 located on a respective upper surface of each shelf,
 - (b) providing a matrix of product packages 301 that cover at least a portion of a product, each of said packages having an electroluminescent material 305 arranged on at least a portion of an exterior surface and having electrical contacts 115 electrically connected to the electroluminescent material 305 and arranged on a portion of a lower surface of the packages so that when said packages are arranged on said shelf, the electrical contacts 115 on the lower surface of each respective package 301 faces the electrical contacts 320 arranged on the shelves 310, and
 - (c) determining by a controller 325 in electrical connection with the shelves 310, which product packages 301 of the matrix are to be illuminated, and an amount of illumination to be displayed.
22. The method according to claim 21, wherein step (c) further includes illuminating the matrix of product packages with different amounts of illumination to entice a consumer to choose the most brightly illuminated packages.
23. The method according to claim 22, wherein the most brightly illuminated packages are products which are closest to a product expiration date.
24. The method according to claim 22, wherein the most brightly illuminated packages are the most profitable packages arranged on the shelves.
25. The method according to claim 22, wherein step (c) includes wherein said matrix being displayed as an arrangement of pixels so that illuminated messages can be displayed across a plurality of product packages 301 used as one or more pixels to create images.